Interview Summary

Application No.	Applicant(s)	
09/212,915	Takasu	
Examiner	Group Art Unit	
Michelle Estrada	2823	

All participants (applicant, applicant's representative, PTO personnel):

(1) *George Fourson* (3) *Francis Hone*

(2) *Michelle Estrada* (4) _____

Date of Interview *Apr 17, 2001*

Type: ☐ Telephonic ☒ Personal (copy is given to ☐ applicant ☒ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☒ No. If yes, brief description:

Agreement ☒ was reached. ☐ was not reached.

Claim(s) discussed: *all in general*

Identification of prior art discussed:
Yoshida et al

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
Applicant proposes an amendment, attached, which would overcome the rejection over Yoshida et al. The amendment will not be entered because it would raise new issues requiring further consideration and/or search.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendents which would render the claims allowable is available, a summary thereof must be attached.)

1. ☒ It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a response to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW.

2. ☐ Since the Examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the interview unless box 1 above is also checked.

George Fourson

MICHELLE ESTRADA
PRIMARY EXAMINER
ART UNIT 2823

Examiner Note: You must sign and stamp this form unless it is an attachment to a signed Office action.

In the Claims:

Please amend claims 1, 4 and 8 in the following manner:

--1. (Amended) A process for fabricating a semiconductor device having a buried layer comprising the steps of:

implanting an impurity ion [into] region below a surface of a substrate where [the] a buried layer is to be formed in [a] the substrate;

[providing] placing the substrate inside a reactor furnace;

[preparing] providing a non-oxidizing atmosphere inside of the reactor furnace;

annealing the substrate to activate and diffuse the implanted impurity ion region while increasing [inside] the internal temperature of the reactor furnace up to a first temperature; and

before the ion implanted region beneath the surface of the substrate expands sufficiently to reach the surface of the substrate, changing [shifting] the [inside] internal temperature of the reactor furnace from the first temperature to a second temperature [in] at which [a] an epitaxial crystal starts to grow on the surface and

introducing [a] an epitaxial growth gas into the reactor furnace to [grow] cause an epitaxial layer to grow on [a] the surface of the substrate.--

--4. (Amended) The process for fabricating the semiconductor device as set forth in claim 1 further comprising the steps of:

[preparing] providing a cleaning gas in the reactor furnace to clean up the surface of the substrate between the step of diffusing the ion implanted region and the step of growing the epitaxial layer.--

--8. (Amended) The process for fabricating the semiconductor device as set forth in claim 4, wherein the cleaning gas comprises [is consist of] H_2 gas.--

Cancel Claim 2

REMARKS

By this amendment a minor informality in the specification has been corrected and claims 1, 4 and 8 have been revised to eliminate indefiniteness and to distinguish clearly from the prior art, while claim 2 has been canceled.

With respect to the rejection of claim 2, which has been canceled, the subject matter of that claim has been incorporated into claim 1 with revised terminology which avoids the basis for the rejection. In response to the Examiner's comments, moreover, it should be noted that, as shown in Figs. 12 and 13 and illustrated graphically in Fig. 14 and described at page 10, line 6 to page 11, line 10 of the specification, the buried impurity layer is implanted beneath the surface of the substrate, and not at the surface and the diffusion of the buried layer together with the growth of the epitaxial layer on the surface are controlled so that the buried layer does not diffuse sufficiently to reach the